

# **Developing an Operations and Maintenance Plan**

## **OPERATIONS AND MAINTENANCE PROGRAM**

### **Why an Operations and Maintenance Program?**

The purpose of an operations and maintenance program (OMP) is to outline what steps the marina facility is taking to reduce nonpoint sources of pollution. The program should be written in a form that identifies on-site activities and applicable best management practices (BMP). In many cases, this means documenting practices that are already in use or providing a schedule for expected implementation. This chapter provides a framework to help marinas create an OMP to minimize or eliminate nonpoint sources of pollution that result from the operations and maintenance of the marina.

This OMP chapter is also designed to address each of the applicable marina management measures as described in chapter five of the *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters*. As described in the introduction, management measures are pollution control objectives, implemented by applying best management practices. States must implement the management measures prior to January 1995 to receive approval of their Coastal Nonpoint Pollution Control Program (CNPCP). Rhode Island's CNPCP will address these management measures by requiring each marina to submit an OMP, outlining how the facility is controlling nonpoint pollution, by 1999. Using the framework provided in this chapter, the marina can create an OMP that addresses the requirements that appear in CRMC's regulations for Recreational Boating Facilities, Section 300.4 of the Rhode Island Coastal Resource Management Program (RICRMP) relating to nonpoint source pollution. When the marina operator has finished this chapter, he/she should have a list of applicable BMPs that will be implemented and included in an OMP.

### **Benefits of an OMP**

Once the CNPCP is in place by 1995, marinas may begin submitting OMPs to CRMC for approval. Each marina is expected to have an OMP approved by 1999. If a submitted OMP demonstrates that the applicable BMPs are fully implemented, then CRMC will allow the facility to perform minor modifications on site, both in-water and upland, without having to receive additional permits from CRMC. The specific modifications allowed by CRMC can be found in section 300.4 of the RICRMP. An OMP would likely receive an approval with stipulations from CRMC if the program identifies the applicable BMPs that are already in place and a planning schedule for those applicable BMPs that are not. This will allow the facility to undertake minor modifications, as prescribed by the stipulations in the approval, without having to apply for a CRMC permit. For either option, certain BMPs will require a CRMC permit before installation. Generally these will include, but are not limited to: increase in impervious surface; filling, removing or grading activities; addition or expansion of hull maintenance areas; or, an increase in the footprint of any building, or additional floors or structures.

The OMP can also be a foundation for the facility to build a comprehensive document that includes everything the facility is doing to comply with environmental regulations. For instance, the framework presented in the following pages and throughout the document, has been designed in coordination with the Storm Water Permitting Program at RI DEM, known as Rhode Island Pollution Discharge Elimination System (RIPDES). An OMP that uses this framework will also meet many of the requirements of RIPDES. To clarify the overlap, Appendix B identifies BMPs suggested by RIPDES that are not included in the CNPCP. When the operator completes the following eight worksheets and the additional one located in Appendix B, he/she should have enough information to complete a Pollution Prevention Plan required by RIPDES for certain facilities, in

addition to an approval OMP. By incorporating other plans, the final OMP will describe all the operational procedures, required by regulation, in place at the facility, providing one document for the marina and government agencies to reference as necessary.

### **Operations and Maintenance Program Requirements**

A typical operations and maintenance program will identify:

- (1) Activities that occur at the facility detailed on a site plan; and
- (2) BMPs that are existing, planned, and not applicable in mitigating nonpoint source issues at the specific facility.

The first step in devising a program to abate nonpoint pollution is to summarize the facility operations and maintenance activities. This component will include a site plan that shows a graphic representation of the facilities' operations, the location of maintenance activities, and applicable BMPs. Site plans should include:

- Title block, with date and name of person who prepared the plan
- North arrow
- A complete set of property bounds
- Marina perimeter limit as defined by CRMC and the location of all in-water facilities
- Boat capacity of the existing slip layout
- Parking areas with striping plan and the surface treatment (e.g., paved, crushed stone, etc.)
- Location of any pumpout facilities, dump-stations, rest rooms, launch ramps, travel lifts, gas docks, etc.
- Location of dry rack storage, with the number of boats accommodated
- Location of seawalls, bulkheads, breakwaters, revetments, etc.
- Location and footprint of all upland structures
- Location of all pertinent underground utilities including, but not limited to, septic tanks and drainage fields, sewer line, pumpout holding tanks, water and electric lines, and fuel tanks and lines
- Location of federal channel or anchorage areas and municipal mooring fields relative to the in-water facilities
- Location of established riparian lines designated by either the Army Corps of Engineers or the CRMC
- General location of docks, piers, etc. on abutting properties

However, before preparing a site plan, an applicant should first consult with the CRMC to ensure that these site requirements are accurate. The marina operator may also

consider reviewing the site plan requirements of the Storm Water Program listed in Appendix B. At this stage of OMP development, it may be easy and cost-effective also to incorporate the storm water site plan requirements if the facility is subjected to the storm water program. Appendix B provides the necessary details.

Site plans are an effective way of showing what activities exist within a marina facility. In some cases, implementation of structural BMPs, such as oil waste receptacles or hull maintenance areas, will be documented on site plans. This reduces the amount of narrative necessary to complete the OMP. The site plan will also include notes that explain the types of vessel storage areas (docks, moorings, dry rack); vessel cleaning, maintenance and repair activities; and, information about other activities that occur on site, including, but not limited to, fueling, pumpout services, and fish cleaning.

The second part of the operations and maintenance program is an explanation of selected BMPs to control nonpoint sources from the on-site activities. Applicable BMPs, when implemented, should minimize or eliminate nonpoint source pollution. In the previous chapter, BMPs are listed by major topics (hazardous material, liquid and solid waste, fuel, oil and hydrocarbons, and vessel discharges of sewage). This chapter lists the BMPs by corresponding management measures presented in the CNPCP. These management measures are equivalent to the objectives stated at the opening of each BMP section. The best management practices listed in this chapter are recommendations that can be used to reduce nonpoint pollution and are not inclusive of all potential BMPs. Alternate practices may be applied if they can meet or exceed the effectiveness of the recommended BMPs. Some facilities may require alternate BMPs because of site specific conditions (e.g. geographical location, unique operations, or other individualized situations.)

The BMP section of an OMP will list:

- **Existing BMPs**-Explain how applicable BMPs are implemented. Often, implementation can be documented by including applicable BMPs on the site plan when possible (e. g., identifying oil containment areas). Applicable BMPs are those that address a nonpoint pollution issue resulting from an activity at the facility.
- **Planned BMPs**-Identify what BMPs are applicable but not yet implemented. Explain when they will be implemented.
- **Not applicable BMPs**-Explain why BMPs are not applicable to the facility. Generally, not applicable BMPs are those that do not address a nonpoint pollution issue resulting from an activity at the facility or cannot be implemented because of a constraint and conditions such as limited land, geographical location, unique operations, or other individual situations. Because each facility is unique, applicability will be decided by CRMC on a site-by-site basis.

If necessary the program will also include:

- What alternative BMPs were applied in lieu of the listed BMPs and a brief explanation why. This provides the flexibility to marina operators to select BMPs that were not listed.
- What management measures are not addressed and a brief explanation why (e.g., fish disposal is not addressed because fish waste has not been shown to be a water quality problem).

Because the final state regulations will not be in place before 1995, it is important that, before preparing an OMP, the marina operator is sure to check with the CRMC to identify the most recent coastal nonpoint regulations and the required components of an OMP. Final instructions can be obtained from CRMC, located at Stedman Government Center, Tower Hill Road, Wakefield, RI 02879 (401-277-2476).

## Selecting BMPs

The following pages contain worksheets designed to help select applicable BMPs. Each worksheet is a list of the BMPs that address specific management measures presented in federal and state nonpoint source programs. There are eight management measures that concern marina operations; therefore, there are eight worksheets. The section number listed with each BMP represents the section within this document where the BMP is explained. To facilitate the decision-making process, a question is posed on each worksheet about a nonpoint source pollution issue. For instance, the question on the solid waste worksheet asks if solid waste is produced by the operation, cleaning, maintenance and repair of boats that are stored on site? If the answer is yes, evaluate each BMPs and, by marking the appropriate box, identify if the practice is either:

- (1) *Existing*-Explain, in the space provided, how it is being implemented.
- (2) *Planned*-Explain, in the space provided, when it will be implemented.
- (3) *Not applicable*-Explain, in the space provided, why it is not applicable.

Refer to the BMP chapters for a complete explanation of the BMPs by using the section reference. If the answer to the framing question is no, explain why it is not an issue on site, then move to the next worksheet.

When you have completed the eight worksheets, you will have completed the BMP component of the OMP that identifies what practices are existing, planned, and not applicable in mitigating nonpoint source issues at the facility. Augment this with a summary of activities that occur at the facility using the site plan and notes, add a cover sheet, and you will have completed an OMP. The following chapter shows what an example of an OMP, completed using this framework, will look like.

This worksheet provides only a suggested framework to develop an OMP. Other methods may exist that better suit a particular marina's needs. Regardless of what methodology is used, the key elements of an OMP are:

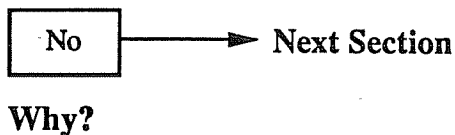
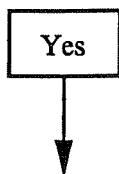
- (1) Activities that occur at the facility; and,
- (2) BMPs that are applicable to mitigate nonpoint source issues.

A marina may opt to use a different format that still includes these two elements if it is more applicable for your facility or provides a clearer program that meets the CRMC requirements.

**Please note: An approved OMP does not conclude a marina's responsibility to adhere to other regulatory programs that extend beyond nonpoint source pollution.**

# 1. Storm Water Runoff

Are hull maintenance areas\* present on-site?



**These practices are:**

Install and maintain adequate buffer areas between the coastal zone and upland facilities (section 100.3).  
Explain:

Existing	Planned	Not Applicable
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Implement effective runoff control strategies such as surfacing area with crushed gravel, decreasing slope of facility towards coastal zone, or installing filters and wet ponds (section 100.3).  
Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Perform maintenance work inside buildings whenever possible (section 100.1).  
Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Perform maintenance over tarps to ease the cleanup process and prevent material from being carried into surface waters. Dispose of collected material properly (section 100.1).  
Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Use vacuum sanders to remove paint from hulls and collect paint dust (section 100.1).  
Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Other.  
Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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\* Hull maintenance areas are areas whose primary function is to provide a place for boats during the scraping, sanding, and painting of their bottoms. If boat bottom scraping, sanding, and/or painting is done in areas other than those designated as hull maintenance areas, this checklist applies to those areas as well. A hull maintenance area may indicate a need for a storm water permit. See Appendix B for additional details.

## 2. Fueling Stations

Yes



No



Next Section

Why?

These practices are:

Existing      Planned      Not  
Applicable

Have adequate spill response equipment (section 200.1).

Explain:

☐☐☐

Maintain a spill prevention and recovery plan (section 200.1).

Explain:

☐☐☐

Inform your local harbormaster and fire department about your spill protection and recovery plan and equipment (section 200.1).

Explain:

☐☐☐

Properly dispose of used oil spill response equipment (section 200.2).

Explain:

☐☐☐

Other.

Explain:

☐☐☐

### 3. Solid Waste

Are solid wastes (including trash, recyclables, hull-cleaning debris, waste generated from boat maintenance) produced by the operation, cleaning, maintenance and repair of boats that are stored on site?

Yes

↓

No → Next Section

Why?

These practices are:

Provide covered containers for solid waste that is generated within the facility (section 100.1).

Explain:

Existing      Planned      Not  
Applicable

☐      ☐      ☐

Provide proper disposal facilities to marina patrons (section 100.2).

Explain:

☐      ☐      ☐

Provide facilities for the eventual recycling of appropriate materials, such as glass, aluminum and plastic (section 100.2).

Explain:

☐      ☐      ☐

Support the use of environmentally compatible products (section 100.3).

Explain:

☐      ☐      ☐

Use pamphlets, flyers, newsletters, inserts and meetings to convey the importance of any environmental precautions that have been instituted in the marina (section 100.3).

Explain:

☐      ☐      ☐

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Have adequate signs throughout facility identifying BMPs (section 100.5).

**Explain:**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Perform abrasive blasting within spray booths or plastic tarp enclosures to prevent residue from being carried into surface waters. If tarps are used, blasting should be closely monitored on windy days (section 100.1).

**Explain:**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Provide and clearly mark designated work areas for boat repairs and maintenance. Do not permit work outside designated areas (section 100.1).

**Explain:**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Clean trash, sandings, paint chips, etc., immediately after any maintenance activity (section 100.1).

**Explain:**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Insert language into facility contract that requires tenants to use certain areas and techniques when conducting boat maintenance (section 100.6).

**Explain:**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Have a clearly written outside contractors agreement (section 100.6).

**Explain:**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Other.

**Explain:**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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## 4. Fish Waste

Is fish waste, as determined by CRMC and DEM, a potential source of water pollution within the facility?

Yes  
↓

No → Next Section  
Why?

These practices are:

	Existing	Planned	Not Applicable
Establish fish-cleaning areas (section 100.2). Explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Educate boaters regarding the importance of proper fish-cleaning practice (section 100.4). Explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Issue rules governing the conduct and location of fish-cleaning operations (section 100.6). Explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other. Explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 5. Liquid Material

Are liquid materials (including oil, harmful solvents, antifreeze, and paints) used in the maintenance, repair, or operation of boats stored on site?

Yes

↓

No

Why?



Next Section

These practices are:

Have separate containers for the disposal of liquid materials such as waste oil, waste gasoline, used antifreeze, waste diesel, kerosene, and mineral spirits available and clearly labeled (section 200.2 and 300.1) .

Existing    Planned    Not  
Applicable

☐
☐
☐

Institute a recycling program for oil filters (section 200.2).

Explain:

☐
☐
☐

Build curbs, berms or other barriers around areas used for the storage of liquid material to contain spills. Store materials in areas impervious to the type of material stored (section 300.1) .

Explain:

☐
☐
☐

Maintain a spill prevention and recovery plan for hazardous material (section 300.2).

Explain:

☐
☐
☐

Have adequate spill response equipment for hazardous material (section 300.2).

Explain:

☐
☐
☐

Place containment berms around fixed pieces of machinery within the facility that use oil and gas (section 200.3).

Explain:

☐
☐
☐

Recycle where possible, adhere to existing state regulations pertaining to disposal of hazardous material (section 300.3).

Explain:

☐
☐
☐

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Enforce the prohibition on the use of TBT-based paint (section 300.4).

Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Use environmentally compatible antifreeze (section 300.4).

Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Keep to a minimum amounts of hazardous material stored and used (section 300.4).

Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Provide to marina tenants information on collection and recycling programs and source reduction (section 300.4).

Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Direct marina patrons as to the proper disposal of all liquid materials through the use of signs (section 300.4).

Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Insert language into facility contract that requires tenants to dispose of hazardous material in the proper containment facilities (section 300.4).

Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Other.

Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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## 6. Petroleum Control

Do fuel and oil from boat bilges and tank air vents enter the marina and surface waters?

Yes

↓

No → Next Section

Why?

### These practices are:

Promote the use of oil-absorbing materials in the bilge areas of all boats with inboard engines (section 200.3).

Explain:

Existing	Planned	Not Applicable
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Use automatic shut-off nozzles and promote the use of fuel/air separators on air vents or tank stems of inboard fuel tanks to reduce the amount of fuel spilled into surface waters during fueling of boats (section 200.3).

Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Provide to marina tenants information on collection and recycling programs for oil and oil absorbing pads (section 200.4).

Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Direct marina patrons to the proper disposal of all used hydrocarbon products through the use of signs, mailings and other means (section 200.4).

Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Insert language into facility contract that recommends tenants use fuel/air separators and oil absorption materials (section 200.4).

Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Other.

Explain:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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## 7. In-Water Boat Cleaning

Do the cleaning of boat topsides and hull scrubbing in the water occur on site?

Yes  
↓

No → Next Section  
Why?

These practices are:

	Existing	Planned	Not Applicable
Wash the boat hull above the waterline by hand (section 300.4). Explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Where feasible, remove the boat from the water and perform cleaning where debris can be captured and properly disposed of (section 100.3). Explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recommend and use phosphate-free and biodegradable detergents and cleaning compounds for washing boats (section 300.4). Explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discourage the use of detergents containing ammonia, sodium hypochlorite, chlorinated solvents, petroleum distillates, or lye (section 300.4). Explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other. Explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 8. Sewage Facility

Are sewage pumpout facilities or dump stations present on site?

Yes



**These practices are:**

No

→ Next section

**Why?**

	Existing	Planned	Not Applicable
Provide the service at convenient times and at a reasonable cost (section 400.2). <b>Explain:</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Make the pumpout station user friendly (section 400.2). <b>Explain:</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Develop and adhere to a regular inspection and maintenance schedule for the pumpout station (section 400.2). <b>Explain:</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with local and state governments to declare your harbor a no-discharge area once adequate pumpout facilities are installed (section 400.3). <b>Explain:</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide educational information about the pumpout service to customers (section 400.4). <b>Explain:</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Formally advise your municipality that you have a pumpout facility available and provide pertinent information, such as time of operation and fee (section 400.5). <b>Explain:</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Encourage the local harbormaster to enforce existing state and federal regulations pertaining to MSDs (section 400.5). <b>Explain:</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Install adequate signs to identify the pumpout station (section 400.6). <b>Explain:</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other. <b>Explain:</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# **Operations and Maintenance Plan**

## **- An Example**



## OPERATIONS AND MAINTENANCE PROGRAM - AN EXAMPLE

This chapter shows, using a model marina as a guide, how an operations and maintenance program (OMP) can be developed. Along with providing a sample of an OMP, this chapter presents a description of the model marina used in the example and some notes on the how the OMP was written. The output of this chapter, a sample of an OMP, was developed using the framework and suggestions presented in the previous chapters. Because the final regulations that require an OMP will not be in place until 1995, this sample plan has not been submitted for an official regulatory review. However, it was created in close consultation with the Coastal Resource Management Council, which will be responsible for approving plans once the coastal nonpoint control program is in place.

An OMP was developed for two reasons. First, developing an OMP created the opportunity to implement best management practices and evaluate their effectiveness. Second, it provided a true test of the worksheets and OMP format presented in the last chapter. By applying a marina's experience and expertise to the recommended OMP planning process, the format and procedures could be evaluated and revised as necessary. This chapter's product, a sample OMP, can provide marina operators with additional insights on how a plan can be developed, what needs to be included, and how it can be presented. Again, this is only one of what may be numerous methods that can be employed to complete an approval plan. Remember, the key components of a plan include:

- (1) Activities that occur at the facility detailed on a site plan; and
- (2) BMPs that are appropriate and not appropriate to mitigate nonpoint source issues at the specific facility.

### The Facility

The model marina is a small-to-medium owner-operated facility located in a Riverine/Estuarine area of Rhode Island. The model marina has the capacity to wet-store 96 boats on three dock systems, one fixed, two floating, and seven single point moorings. There are no dry racks. The largest vessel the facility wet-stores is approximately 50 feet, and the average size boat is 28 to 32 feet. Smaller boats, under 25 feet in length, are also stored and make up about 10 percent of the population. There is an almost even mix of sailboats and power boats. Many of the tenants use their boats for day trips. On occasion, during the boating season, transients do visit the boatyard, but the primary focus is on seasonal tenants.

The upland area is less than one acre (40,000 sq. ft) and contains two small structures that house the ship's store, the business office, and rest rooms. The other, smaller, building is used as a storage shed and work area. Boat storage in the winter and auto parking during the boating season occupy the rest of the upland area. This area is surfaced with a mix of gravel and hard-packed sand. Pavement is not used on site. Parking is on a first come-first serve basis, with adequate spaces for over 71 automobiles. Below the parking area is an underground storage tank for fuel and a septic system.

The facility, like many in Rhode Island, is in a residential neighborhood. A small paved road separates the marina facility from the residential homes to the east and the other two sides are also abutted by residential homes. On the water side, a federal navigational channel is approximately 70 feet westward of the docks.

The boatyard hauls boats from the water by one of two methods. First, a crane and sling raises boats from the water onto a trailer where they can be moved around the facility. The second method is a marine railway system in which boats are floated onto a cart and winched up the rails.

When fully operational, the facility employs three people who are responsible for maintaining the facility, operating the fuel dock, running the ship's store, and managing the business. The boatyard provides some general services to customers, such as winterization and commissioning. Some minor maintenance activities occur on site, which usually include engine repairs, hull painting and scraping, woodworking and some fiberglass repairs.

### **Developing an Operations and Maintenance Plan - An Example**

The following is an example of a OMP developed for the model marina. It was created by using fictional and real information from the model marina, to complete the worksheets presented in the last chapter. Each BMP listed in the last chapter's worksheets was considered, and the practices were selected as either existing, planned, or not applicable, followed by an explanation. In addition to the worksheets, a site plan appropriate for the model site was completed. Drawing the site plan was the last step in the preparation of the OMP because this allowed the BMPs selected for use to be shown on the drawing. Of course not all BMPs can be shown graphically (i.e. using environmentally compatible cleaners), but they should be whenever possible. The OMP begins with a basic cover sheet that identifies the applicant and submission date.

# **Operations and Maintenance Program**

**The Model Marina**

**Submitted to:**

**Coastal Resource Management Council  
Stedman Government Center  
Tower Hill Road  
Wakefield, RI 02879**

**Submitted by:**

**The Model Marina  
12 Water Street  
Smalltown, RI 00000  
401-555-0000**

**Submitted on:**

**July 1, 1994**

This operations and maintenance program (OMP) accurately identifies (1) activities that occur at the facility and (2) BMPs that are applicable to mitigate nonpoint source issues for the model marina. This OMP is submitted to the Coastal Resource Management Council pursuant to section 300.4 of the RI Coastal Resource Management Program. The following section identifies the activities that exist on site. This is achieved by first describing the site and also displaying the appropriate information on an attached site plan.

## IDENTIFIED ACTIVITIES

### Notes

- (1) ***Location***-Marina is the on the Smalltown River, 80 feet southeast of the federal channel marker number nine. The facility is 40,000 sq. ft situated on plat 149 lot 42 and 42A in Smalltown, RI. See site plan for property bounds.
- (2) ***Marina perimeter***-CRMC marina permit number A93-1-53. See site plan for location of in-water facilities and marina perimeter delineation.
- (3) ***Boat capacity of the existing slip layout***-In-water capacity is 96 vessels, ranging from under 25 feet to approximately 50 feet.
- (4) ***Parking areas***-There is parking for a minimum of 71 automobiles. The parking area is surfaced with a mix of gravel and hard-packed sand.
- (5) ***Services and activities***-Services available at the facility include pumpout station and fuel pump located on the south pier; rest rooms in main building; marine railways and crane for boat hauling; and boat supplies sold in ship's store. See site plan for locations. The property is used primarily for storing recreational boats. In addition to boat storage, other activities include: winterization and commissioning; minor engine repairs, wood and fiberglass repairs; hull scraping and painting.
- (6) ***Dry rack storage***-There is no dry rack storage. During the winter, the upland facility stores boats.
- (7) ***Structures***-Two nonpermanent buildings are on the property. One is the main building that houses the business office, ship's store, and rest rooms. The other, smaller, building stores equipment and materials used in the operation of the marina. Bulkheads and revetments create the land-water interface. See site plan for locations.
- (8) ***Underground utilities***-Underground utilities are shown on site plan.
- (9) ***Miscellaneous***-Location of the federal channel and municipal mooring fields; location of established riparian lines; and general location of docks, piers, etc., on abutting properties can be found on the site plan.

### Site Plan

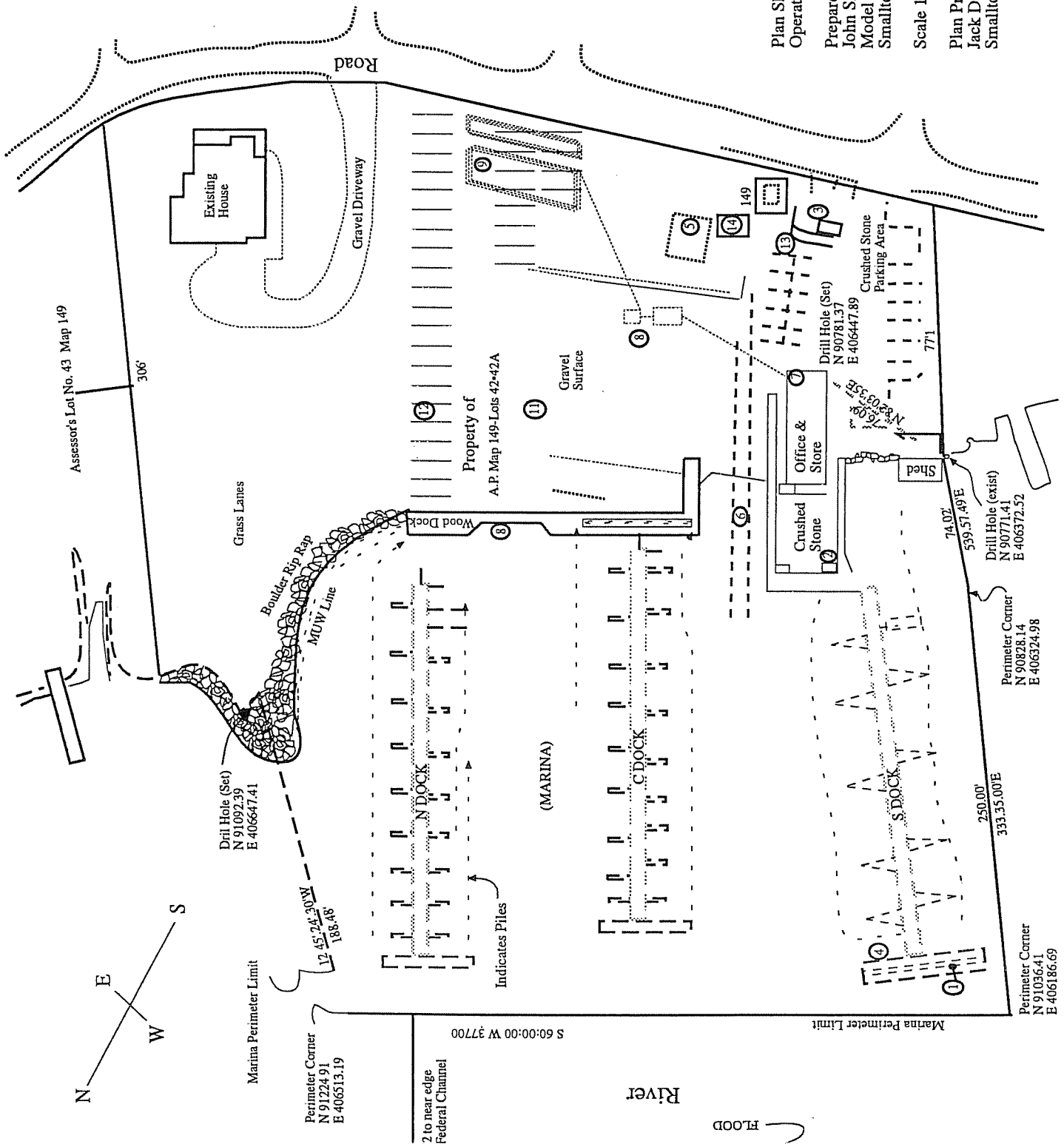
- (1) *See attached*

# Legend and Notes

- 1 Sewage Pump-out Facility (boater's access)
- 2 Sewage Pump-out Unit (vacuum and pump)
- 3 Sewage Holding Tank (watertight)
- 4 Gasoline and Diesel Dock Pumps
- 5 Underground Gas & Diesel Fuel Tanks
- 6 Railway Boat Launch (winch operated)
- 7 Restroom & Shower Facilities (in building)
- 8 Septic Tank and Pump Chamber
- 9 Leaching Field (RIDEM 8536-104)
- 10 Boat Launching Area by Crane
- 11 Boat and Hull Repair Area
- 12 Typical Parking Space (gravel lot, no lines)
- 13 Water Service Line (town water supply)
- 14 Liquid Waste Receptacle

## Notes:

1. This plan is a composite plan based upon other plans prepared for this marina. (See RICRMC Assent No. A95-1-55, modified 2/23/94.) Further detail showing underground piping and electrical utilities are shown on larger scale plans.
2. "A dock" and "C dock" are floating docks, "B dock" is fixed pile and timber.
3. Boat capacity is 96 boats.



Plan Showing  
Operations and Maintenance Program Perimeter

Prepared for:  
John Smith  
Model Marina  
Smalltown, RI

Scale 1"=40' July 1994

Plan Prepared by:  
Jack Doe, Jr. PLS  
Smalltown, RI



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## **BMP SELECTION AND IMPLEMENTATION SCHEDULE**

The following is a list of BMPs for the model marina, divided by major nonpoint source issue, that are existing, planned, or not appropriate for the model marina. An explanation about how each practice is or will be implemented, or why it is not being implemented, is provided.

# 1. Storm Water Runoff

Are hull maintenance areas\* present on site?

Yes

↓

No → Next Section

Why?

These practices are:

Install and maintain adequate buffer areas between the coastal zone and upland facilities (section 100.3).

**Explain:** *Because of the facility's limited size, the installation of buffer areas is impractical. Instead of buffer areas, the facility is implementing BMPs that focus on source reduction and limiting the amount of material allowed to enter the open environment.*

Existing      Planned      Not Applicable

☐      ☐      ☒

Implement effective runoff control strategies, such as surfacing area with crushed gravel, decreasing slope of facility towards coastal zone, or installing filters and wet ponds (section 100.3).

**Explain:** *Steepest portion of the facility has been regraded and topped with crushed gravel. These changes, along with the implementation of BMPs that reduce the amount of material entering the open environment, reduce the risk of pollutant-laden runoff.*

☒      ☐      ☐

Perform maintenance work inside buildings whenever possible (section 100.1).

**Explain:** *Because of space limitations and the expenses associated with providing inside facilities, all maintenance activities on vessels are performed outside.*

☐      ☐      ☒

Perform maintenance over tarps to ease the cleanup process and prevent material from being carried into surface waters. Dispose of collected materials properly (section 100.1).

**Explain:** *Because the entire area is a maintenance area, when feasible, maintenance is done over tarps to ease the cleanup process and prevent material from being carried into surface waters. Tenants are advised to use this procedure before they sand or paint boat bottoms. Collected material is disposed of by sealing it and placing it in the central trash receptacle.*

☒      ☐      ☐

Use vacuum sanders to remove paint from hulls and collect paint dust (section 100.1). **Explain:** *The facility is considering the purchase of a vacuum sander to remove paint from hulls and collect paint dust. Decisions will be made based on this season's experience.*

☐      ☒      ☐

Other.

**Explain:**

☐      ☐      ☐

\* Hull maintenance areas are areas whose primary function is to provide a place for boats during the scraping, sanding, and painting of their bottoms. If boat bottom scraping, sanding, and/or painting is done in areas other than those designated as hull maintenance areas, this checklist applies to those areas as well. A hull maintenance area may indicate a need for a storm water permit. See Appendix B for additional details.

## 2. Fueling Stations

Are fueling stations present on-site?

Yes  
↓

No → Next Section  
Why?

These practices are:

	Existing	Planned	Not Applicable
Have adequate spill response equipment. (section 200.1) Explain: <i>Facility has adequate spill response equipment (see oil spill recovery plan).</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintain a spill prevention and recovery plan. (section 200.1) Explain: <i>Facility maintains a spill prevention and recovery plan (attached).</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inform your local harbormaster and fire department about your spill protection and recovery plan and equipment. (section 200.1) Explain: <i>Harbormaster and fire department have been notified that equipment is on-site in a letter dated March 1994.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Properly dispose of used oil spill response equipment. (section 200.2) Explain: <i>Proper disposal equipment (55 gallon drum) for used oil spill response equipment and oil absorbing material will be made available by May 1995.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other. Explain:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



### 3. Solid Waste

Are solid wastes (including trash, recyclables, hull-cleaning debris, waste generated from boat maintenance) produced by the operation, cleaning, maintenance, and repair of boats that are stored on site?

Yes

No

→ Next Section

Why?

These practices are:

	Existing	Planned	Not Applicable
Provide covered containers for solid waste that is generated within the facility (section 100.1). <b>Explain:</b> <i>Covered containers are available for staff and customers to dispose of waste.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide proper disposal facilities to marina patrons (section 100.2). <b>Explain:</b> <i>Proper disposal facilities are provided to marina patrons for trash. A central dumpster is located near main building. Individual trash receptacles are located on the beginning of each dock.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide facilities for the eventual recycling of appropriate materials, such as glass, aluminum, and plastic (section 100.2). <b>Explain:</b> <i>Facilities for the recycling of glass, aluminum, and plastics are provided on site, near the main building.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Support the use of environmentally compatible products (section 100.3). <b>Explain:</b> <i>The facility supports the use of environmentally compatible products by providing appropriate materials for sale in the ship's store. Examples include environmentally compatible antifreeze, head chemicals, and cleaning compounds.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use pamphlets, flyers, newsletters, inserts, and meetings to convey the importance of any environmental precautions that have been instituted in the marina (section 100.3). <b>Explain:</b> <i>The facility distributes a monthly newsletter to all its customers. As part of that newsletter, information about the importance of properly using the instituted BMPs is stated. Also, through the use of a bulletin board located near the restrooms, marina tenants are notified about new practices or procedures. The facility has also hosted several events that feature their environmentally compatible practices.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have adequate signs throughout facility identifying BMPs (section 100.5). <b>Explain:</b> <i>Signs mark all trash and recycling containers and what they are designed to accept.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perform abrasive blasting within spray booths or plastic tarp enclosures to prevent residue from being carried into surface waters. If tarps are used, blasting should be closely monitored on windy days (section 100.1). <b>Explain:</b> <i>No abrasive blasting is performed.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Continued next page

Provide and clearly mark designated work areas for boat repairs and maintenance. Do not permit work outside designated areas (section 100.1).

**Explain:** *Because of space constraints, it is impossible to provide a single designated work area for boat repairs and maintenance. Because the extent of the repair and maintenance work is limited and primarily focused on painting and sanding, the entire upland area where boats are stored is designated as a work area.*

☒ ☐ ☐

Clean trash, sandings, paint chips, etc., immediately after any maintenance activity (section 100.1).

**Explain:** *To minimize the impacts from the activities that occur in the designated work area, trash, sandings, paint chips, etc., are cleaned immediately after any maintenance activity.*

☒ ☐ ☐

Insert language into facility contract that requires tenants to use certain areas and techniques when conducting boat maintenance (section 100.6).

**Explain:** *Inserting language into facility contract that requires tenants to use certain areas and techniques when conducting boat maintenance is unnecessary at this time. If practices are not adequately used by tenants, then this will be reconsidered.*

☐ ☐ ☒

Have a clearly written outside contractors agreement (section 100.6).

**Explain:** *All outside contractors and tenants are required to check in with the office before they can begin work. They must provide the marina manager with information about the nature of their work. They are instructed accordingly.*

☒ ☐ ☐

Other.

**Explain:**

☐ ☐ ☐

## 4. Fish Waste

Is fish waste, as determined by CRMC and DEM, a potential source of water pollution within the facility?

Yes

↓

No

→ Next Section

**Why?** *Neither CRMC nor DEM has found fish waste to be a source, or potential source, of water pollution within the facility.*

**These practices are:**

Establish fish-cleaning areas (section 100.2).

Explain:

Existing    Planned    Not  
Applicable

☐
☐
☐

Educate boaters regarding the importance of proper fish-cleaning practice (section 100.4).

Explain:

☐
☐
☐

Issue rules governing the conduct and location of fish-cleaning operations (section 100.6).

Explain:

☐
☐
☐

Other.

Explain:

☐
☐
☐

## 5. Liquid Material

Are liquid materials (including oil, harmful solvents, antifreeze, and paints) used in the maintenance, repair, or operation of boats stored on site?

Yes  
↓

No

Why?

Next Section

These practices are:

	Existing	Planned	Not Applicable
Have separate containers for the disposal of liquid materials such as waste oil, waste gasoline, used antifreeze, waste diesel, kerosene, and mineral spirits should be available and clearly labeled (section 200.2 and 300.1). <i>Explain: A container is available and clearly marked for the disposal of waste oil, gasoline, and diesel. A used antifreeze container will be added by May 1995. Containers are emptied by a state-certified waste hauler.</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Institute a recycling program for oil filters (section 200.2). <i>Explain: Recycling oil filters at this time is not practical because the number of filters to be recycled is low. However, before filters are disposed of in waste receptacle, they are fully drained into waste oil receptacle and stored in a covered 55 gallon drum. Filters are disposed of by a state-certified waste hauler.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Build curbs, berms or other barriers around areas used for the storage of liquid material to contain spills. Store materials in areas impervious to the type of material stored (section 300.1). <i>Explain: A berm surrounding the container for waste oil, gasoline, and diesel, and capable of collecting 110% of the material will be installed by May 1995. Berm will be made of steel plating welded at the seams. The area will be covered by a roof, surrounded by a fence that provides limited access.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Maintain a spill recovery plan for hazardous material (section 300.2). <i>Explain: Primary upland threat of spill is waste oil. This contingency is covered in the oil spill recovery plan (attached).</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have adequate spill response equipment for hazardous material (section 300.2). <i>Explain: (See oil spill recovery plan).</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Place containment berms around fixed pieces of machinery within the facility that use oil and gas (section 200.3). <i>Explain: There are no fixed pieces of machinery that use oil and gas within the facility.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Recycle where possible, adhere to existing state regulations pertaining to disposal of hazardous material (section 300.3). <i>Explain: Waste oil, gasoline, and diesel are recycled, using a certified waste hauler.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Continued next page

Enforce the prohibition on the use of TBT-based paint (section 300.4).

**Explain:** *Facility is not licensed to apply TBT-based paint.*

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Use environmentally compatible antifreeze (section 300.4).

**Explain:** *Environmentally compatible antifreeze is available, in small amounts, in the ship's store.*

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Keep to a minimum the amounts of hazardous material stored and used (section 300.4).

**Explain:** *Minimal amounts of hazardous materials are used and are stored in small quantities in the shed.*

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Provide to marina tenants information on collection and recycling programs and source reduction (section 300.4).

**Explain:** *The facility distributes a monthly newsletter to all of its customers. As part of that newsletter, information about the importance of properly using the instituted BMPs is stated. Also, through the use of a bulletin board located near the restrooms, marina tenants are notified about new practices or procedures.*

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Direct marina patrons as to the proper disposal of all liquid materials through the use of signs (section 300.4).

**Explain:** *All liquid disposal containers are clearly marked.*

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Insert language into facility contract that requires tenants to dispose of hazardous material in the proper containment facilities (section 300.4).

**Explain:** *Inserting language into facility contract that requires tenants to dispose of hazardous material in the proper containment facilities is not appropriate at this time.*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	-------------------------------------

Other.

**Explain:**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

## 6. Petroleum Control

Do fuel and oil from boat bilges and tank air vents enter the marina and surface waters?

Yes  
↓

No → Next Section  
Why?

### These practices are:

Promote the use of oil-absorbing materials in the bilge areas of all boats with inboard engines (section 200.3).

**Explain:** *Oil-absorbing materials are sold in the ship's store and are suggested for use in the bilge areas of all boats with engines.*

Existing      Planned      Not Applicable

☒      ☐      ☐

Use automatic shut-off nozzles and promote the use of fuel/air separators on air vents or tank stems of inboard fuel tanks to reduce the amount of fuel spilled into surface waters during fueling of boats (section 200.3).

**Explain:** *Automatic shut-off nozzles are used on the two fuel pumps. Fuel/air separators for air vents or tank stems of inboard fuel tanks are available in the ship's store.*

☒      ☐      ☐

Provide to marina tenants information on collection and recycling programs for oil and oil-absorbing pads (section 200.4).

**Explain:** *Use of these products and recycling of oil and oil-absorbing pads is promoted in the monthly newsletter and by the dock attendant.*

☒      ☐      ☐

Direct marina patrons to the proper disposal of all used hydrocarbon products through the use of signs, mailings and other means (section 200.4).

**Explain:** *Waste oil receptacle is properly marked.*

☒      ☐      ☐

Insert language into facility contract that recommends tenants to use fuel/air separators and oil absorption materials (section 200.4).

**Explain:** *Inserting language into facility contract that recommends tenants use fuel/air separators and oil absorption materials is unnecessary at this time. If practices are not adequately used by tenants, then this will be reconsidered.*

☐      ☐      ☒

Other.

**Explain:**

☐      ☐      ☐

## 7. In-Water Boat Cleaning

Do the cleaning of boat topsides and hull scrubbing in the water occur on site?

Yes  
↓

No → Next Section  
Why?

These practices are:

	Existing	Planned	Not Applicable
Wash the boat hull above the waterline by hand (section 300.4). <i>Explain: No pressure washer or other mechanical means to clean boat topsides are used on docks.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Where feasible, remove the boat from the water and perform cleaning where debris can be captured and properly disposed of (section 100.3). <i>Explain: Because of limited operational capacity to lift each boat prior to cleaning, this practice is not appropriate at this time.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Recommend and use phosphate-free and biodegradable detergents and cleaning compounds for washing boats (section 300.4). <i>Explain: Phosphate-free and biodegradable detergents are available for sale in ship's store.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discourage the use of detergents containing ammonia, sodium hypochlorite, chlorinated solvents, petroleum distillates, or lye. (section 300.4) <i>Explain: Through the monthly newsletter and other postings, the use of certain detergents is discouraged. Sales clerks in the ship's store recommend using detergents that are phosphate-free and biodegradable.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other. <i>Explain:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 8. Sewage Facility

If you have vessels within your facility that have on-board sanitation devices, consider installing a pumpout facility.

**Are sewage pumpout facilities or dump stations present on site?**

Yes



No

Next section

**Why?**

**These practices are:**

Existing      Planned      Not Applicable

Provide the service at convenient times and at a reasonable cost (section 400.2).

**Explain:** *Pumpout service is available every day from 7 a.m. to 5 p.m. On Saturday mornings, tenants are invited to use the pumpout for free. The normal cost is \$5 per holding tank less than 25 gallons.*

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Make the pumpout station user friendly (section 400.2).

**Explain:** *The pumpout area is clean and easily accessible. It is operated by one of the marina staff.*

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Develop and adhere to a regular inspection and maintenance schedule for the pumpout station (section 400.2).

**Explain:** *The pumpout is inspected once a month during the boating season according to the manufacturer's specification. At the end of the boating season, the sewer lines are cleared for winterization.*

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Work with local and state governments to declare your harbor a no-discharge area once adequate pumpout facilities are installed (section 400.3).

**Explain:** *The facility distributes a monthly newsletter to all of its customers. As part of that newsletter, information about the importance of properly using the instituted BMPs is stated. Also, through the use of a bulletin board located near the restrooms, marina tenants are notified about new practices or procedures.*

☒

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☐

Provide educational information about the pumpout service to customers (section 400.4).

**Explain:** *A letter dated May 1993 was directed to the harbormaster, advising him that the pumpout facility is available, and providing him with the pertinent information, such as time of operation and fee.*

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Formally advise your municipality that you have a pumpout facility available and provide pertinent information, such as time of operation and fee (section 400.5).

**Explain:** *Representatives from the marina have been active in the town's harbor planning process, encouraging the local harbormaster to enforce existing state and federal regulations pertaining to MSDs.*

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Encourage the local harbormaster to enforce existing state and federal regulations pertaining to MSDs (section 400.5).

**Explain:** *See Above*

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Install adequate signs to identify the pumpout station (section 400.6).

**Explain:** *Official EPA Pumpout sign installed on pumpout dock.*



Other.

**Explain:** *The marina provides four upland restroom facilities for its customers and encourages their use. Restrooms are cleaned daily.*



## **Final notes on developing an OMP**

The information presented in the BMP section of this document provides ideas and explanations about how to choose and implement BMPs. By going through the process of developing an OMP in cooperation with a model marina, it was found that many of the practices were already in place and only some housecleaning and implementation of some selected BMPs were necessary. The new BMPs implemented at the model marina include a pumpout station, oil waste receptacle, oil spill response plan, and use of improved practices during painting and sanding.

The decision to designate the entire facility a maintenance area was made out of sheer necessity and therefore required the installation of additional practices on a wider scale. For instance, the marina operator will now have to carefully watch tenants to be sure they are using tarps below the areas they are cleaning. If this proves to be inadequate, then the facility will, in all likelihood, purchase a vacuum sander and make it available for its customers for a small fee. The final step, if the tenants do not embrace the practices, is to include some language in the contract requiring proper procedures. The best solution to this problem would have been to offer a specific area within the facility where boats can be moved for work, an area specially designed to collect waste easily. However, because of the facility's space constraints, this is impossible.

The facility did not want to add language to the contracts, forcing boaters to use the practices. Instead, use will be encouraged by making BMPs openly available and providing enough good information about them to customers. The reluctance to insert language into the contract stems from the desire to minimize the need for the marina operator to act as an enforcement official. It is better to foster an atmosphere where other boaters ensure that the practices are being properly applied by policing one another.

Overall, the OMP planning process was easily completed. The BMPs were extracted from the worksheets, evaluated, and selected as existing, planned, or not applicable. For those that were not applicable, the reasons were stated. For those that were applicable, a brief summary explained how the BMPs were implemented, or will be. In some instances, the facility was exempted from a whole worksheet because the problem or issue did not exist at the facility. The site plan is based on the plan that was submitted to the CRMC for the marina perimeter program, only modified to show upland facilities and the structural BMPs that were implemented as a result of this process.

The BMPs that were selected for implementation were chosen because they worked within the constraints of the facility and met the requirements of the management measures. If the facility had provided different services or had more space, the BMPs may have been different. Regardless of the BMPs, the OMP contained the two key elements. First, it identified, both in writing and by drawing, the facility activities. Second, it detailed the practices that were implemented or being implemented to address each of the management measures. These two components, presented in this format, provide a sample of an OMP that addresses nonpoint pollution at the model marina site.